FRACZEK, Edward

      Scientific Session of the Department of Hydraulic Engineering of the
Krakow Polytechnica College. Przegl geol 10 no.10:538-540 O '62.

POLAND / Physical Chemistry. Crystals.   B

Abs Jour: Ref Zhur-Khimiya, No 24, 1958, 80561.

Author   : Braginiski, A., Fraczek, K., Fraczek. T.
Inst·   : Not given.
Title   : Oxidation of Solid Solutions of MnO-Fe$_2$O$_3$.

Orig Pub: Arch. elektrotechniki, 1957, 6, No 4, 597-612.

Abstract: Effect of oxidation on the magnetic properties
          of MnO-Fe$_2$O$_3$ solid solutions was investigated.
          The results indicate that in the oxidation of
          MnF$_2$O$_4$, solid solutions of MnFe$_2$O$_4$·Mn$_2$O are
          being formed, the magnetic properties of which
          differ from those of the former. These sol-
          utions do not contain Mn (4$\neq$). Protection
          against the air oxidation is responsible to the
          ferrite layer formed. Effects of SiO$_2$, present

Card 1/2

POLAND / Physical Chemistry.   Crystals.   B

Abs Jour: Ref Zhur-Khimiya, No 24, 1958, 80561.

Abstract: as impurities, was also investigated.   It
         tends to increase density of the layer formed
         in the process of oxidation and to improve
         magnetic properties of $MnO \cdot Fe_2O_3$ solid sol-
         utions.

Card 2/2   13

P/014/61/040/003/002/005
A221/A126

AUTHOR: Frączek, Kazimierz

TITLE: Radio isotopes in organic industry

PERIODICAL: Przemysł Chemiczny, no. 3, 1961, 133-138

TEXT: This is a diduotic article dealing with application of
radio isotopes in organic chemistry and discussing further trends in
that line. In the first part of this article the author treats the
fundamentals of radio isotope radiation, methods of measuring it, as well
as safety problems connected with handling them. For investigations in
organic chemical industry, compunds marked with radio isotopes are used,
but only with isotopes of those elements which occur in organic com-
pounds. Isotopes C-14 and H-3 (tritium) are used most frequently and
less frequently those of S-35, Cl-36, I-131, P-32 and others. Prepara-
tion of isotope-marked compounds is difficult and expensive. Most
common are tritium compounds as they can be relatively easy introduced
into organic compounds, especially after the scintillating method of
its activity measurement was introduced. By this method concentration
Card 1/ 3

Radio isotopes in organic industry

P/014/61/040/003/002/005
A221/A126

of tritium as low as 10^{-10} c/ml H_2O can be detected. The success of investigation greatly depends on selection of the proper isotope for the particular problem. For safety reasons it is desirable to try using short living isotopes like Na-24, Br-82, La-140, K-42 or Cu-64. Sources of faults are: 1) isotopic effect, caused by mass difference of the same element, 2) radiolysis, i.e. decomposition of organic compounds under the influence of radiation, 3) radio-chemical purity - radiation must be emanated only by the measured indicator, any other sources of radiation must be eliminated, 4) the most frequent cause of faults is the isotopic exchange. When planning isotopic investigations on laboratory or industrial scale, it is advisable to foresee, if possible, the optimum activity to be introduced, considering the fact that the indicator will be diluted. In general, the isotopic method of investigation is unique in its simple non-destructive way of investigation and its sensitivity. Further, the author discusses briefly several examples of this method applied to various sectors of organic chemistry investigations. There are 1 table, 10 figures and 14 references: 10 Soviet-bloc and 4 non-Soviet-bloc. The reference to the English-language publications read as follows: W.G. Verly, Tritium-Measurement, Production of Labelled

Card 2/3

Radio isotopes in organic industry

P/014/61/040/003/002/005
A221/A126

Compounds and Biological Uses, JAEA Review Series nr 2, New York 1960.
Proceedings of the International Conference on Peaceful Uses of Atomic
Energy, New York 1956. Proceedings of the Second United Nations Inter-
national Conference on the Peaceful Uses of Atomic Energy, Geneva 1958.

Card 3/3

FRACZEK, Kazimierz; LEPICH, Teresa; POLACZEK, Jerzy

Cumarone-indene resins. Pt.1. Koks 8 no.3:94-100 My-Je'63.

1. Instytut Ciezkiej Syntezy Organicznej, Warszawa.

DURLIK, Bronislaw, inz.; FRACZEK, Ludwik, inz.

Activity methods of the factory circle of the Association of
Engineers and Technicians of the Metallurgic Industry of the
B.Bierut Ironworks. Przegl techn 85 no.1:9 5 Ja '64.

FRACZEK, M.

FRACZEK, M. Means of organizational and economic strengthening of collective farms in mountainous regions. P. 52.

No. 3/4, 1956
ZAGEDNIENIA EKONOMIKI ROLNEJ
AGRICULTURE
Warsazawa, Poland

So: East European Accession, Vol. 6, no. 3, March 1957

Fraczek, R.

637.53 : 664.91.036.2

Fraczek R., Pajdowski Z. The Decomposition of Sulphydrylic Groups during Thermal Meat Processing.

„O rozkładzie grup sulfyhydrylowych pod wpływem obróbki termicznej w mięsie". Przemysł Spożywczy. No. 8, 1955, pp. 331—336, 1 fig., 3 tabs.

A definition of the quality and quantity of the process of decomposition of sulphydrylic groups in beef during thermal processing together with the definition of changes in brittleness and the quantity of meat juice lost during processing. The functional dependence of the decomposition of sulphydrylic groups on the duration and temperature of thermal action is confirmed. In conclusion, the critical temperature for the decomposition of the group SH = 80° C is stated. Meat brittleness and loss of juice are seen to be dependent on the duration and temperature of thermal processing.

POLAND / Physical Chemistry. Crystals.   B

Abs Jour: Ref Zhur-Khimiya, No 24, 1958, 89561.

Author   : Braginiski, A., Fraczek, K., Fraczek, T.
Inst·   : Not given.
Title   : Oxidation of Solid Solutions of MnO-Fe$_2$O$_3$.

Orig Pub: Arch. elektrotechniki, 1957, 6, No 4, 597-612.

Abstract: Effect of oxidation on the magnetic properties
          of MnO-Fe$_2$O$_3$ solid solutions was investigated.
          The results indicate that in the oxidation of
          MnF$_2$O$_4$, solid solutions of MnFe$_2$O$_4$·Mn$_2$O are
          being formed, the magnetic properties of which
          differ from those of the former. These sol-
          utions do not contain Mn (4/). Protection
          against the air oxidation is responsible to the
          ferrite layer formed. Effects of SiO$_2$, present

Card 1/2

POLAND / Physical Chemistry. Crystals.   B

Abs Jour: Ref Zhur-Khimiya, No 24, 1958, 80561.

Abstract: as impurities, was also investigated. It
          tends to increase density of the layer formed
          in the process of oxidation and to improve
          magnetic properties of $MnO \cdot Fe_2O_3$ solid sol-
          utions.

Card 2/2   13

FRACZEK, Z.

II

The Reconditioning of Sintered Carbide Dies. Z. Fraczek. (Hutnik (Warsaw), 1951, 18, July-Aug., 299-304). [In Polish]. It is shown that by standardising the die elements and correct methods of polishing, the reconditioning of dies can be considerably facilitated. — V. G.

METALLURGICAL LITERATURE CLASSIFICATION

FRACZEK, Zygmunt

Line coordination in iron metallurgy. Wiad hut 15 [i.e. 20] no. 4: 125-128 Ap '64.

FRADIN, A. Z.

"Remarks on the Paper by J. Feld 'The Condenser as a System with Distributed
Constants', " Zhur. Eksper. i Teoret. Fiz., 9, No. 5, 1939.

FRADIN, A. Z.

PA 30497T103

USSR/Radio
Antennas - Constants
Resonance

Nov/Dec 48

"Investigation of Resonance and Asymmetry in Edkok's Antenna-Feeder Systems," A. Z. Fradin, V. A. Khatskel-evich, Candidates Eng Sci, 22½ pp

"Radiotekh" Vol III, No 6

Presents sufficiently accurate investigation of resonance phenomena which occur in an Edkok Edcock ? symmetrical antenna-feeder system. Results enable some important amendments to existing concepts of these phenomena. Presents detailed investigation of the influence of asymmetry of individual elements of

USSR/Radio (Cont'd)

Nov/Dec 48

the system on its resonances, and on distortions of the direction diagram. Analysis of the latter enables nature and magnitude of errors in operation of Edkok antenna-feeder systems, e.g., in direction finders, to be determined. Submitted 12 Jul 48.

30/497T103

FRADIN, A. Z. and KHATSKELEVICH, V. A.

"Symmetrical and Asymmetrical Adcock Antenna Feeder Systems," Sbornik Trudov LEIS imeni Bonch-Bruyevich, No 6, 1949.

FRADIN, A. Z.

Anteny pro centimetrove a decimetrove vlny. Matematicky dodatek napsal Rudolf Bayer. (Vyd. 1.) Praha, Statni nakl. technicke literatury, 1954. 43 p. (Antennas for centimeter and decimeter waves. Includes a mathematical supplement by Rudolf Bayer. 1st ed.)

SO: Monthly List of East European Accessions, (EEAI.), LC, Vol. 5, No. 6 June 1956, Uncl.

USSR

3919. **Aerial effect of a symmetrical feeder.** A. Z. FRADIN AND V. A. OLENDSKII. *Radiotekhnika*, 10, No. 2, 29-39 (1955) In Russian.

After a brief survey of conventional methods of suppressing the aerial effect by symmetrical feeder and input arrangements (coaxial feeder, open phase-balance quadfeeder, etc.), a full analysis of the general problem is presented. The aerial effect can be expressed as the ratio of the feeder radiation field potential to that of the aerial, and is shown to depend on the asymmetric component of the receiver input, aerial power gain, effective height of the feeder and its distance from ground. Of particular interest is the strict derivation of the formulae for the in-phase and out-of-phase standing currents on the feeder line, based on Pistolkors' theoretical investigations.

A. LANDMAN

Category : USSR/Radiophysics - Radiation of radio waves. Antennas

I-5

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1844

Author   : Fradin, A.Z., Olenskiy, V.A.
Title   : Method for the General Solution of the Antenna Effect of a Feeder,
           Occuring under the Influence of the Asymmetry of the Receiver Input
Orig Pub : Tr. Leningr. elektrotekhn. in-ta svyazi, 1956, vyp. i, 48-69

Abstract : See Ref. Zhur. Fiz. 1956, 11010

Card   : 1/1

RADIN, A   Z

1/5
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Antenny Sverkhvysokikh Chastot
(Super-High Frequency Antennas)
Moskva, "Sovetskoye Radio", 1957.
  635 p. Illus., Diagrs., Graphs,
Tables.
  "Literatura": p. 642-644.

MEA

FRADIN, AFROIM ZELIKOVICH

PHASE I BOOK EXPLOITATION   134

Fradin, Afroim Zelikovich

Antenny sverkhvysokikh chastot (Microwave Antennas) Moscow, Izd-vo "Sovetskoye
   radio", 1957. 646 p. No. of copies printed not given

Ed.: Masharova, V. G.; Tech. Ed.: Koruzev, N. N.

PURPOSE: The book is intended for specialists in radio engineering and can be also
        used as a textbook for students and teachers in vuzes.

COVERAGE: The book presents the theory of radiation of microwave antennas, infor-
        mation about all existing types of microwave antennas, physical funda-
        mentals of their operation and methods of engineering calculation of their
        characteristics. The following Soviet scientists are mentioned as having
        invented new types of antennas or having contributed to the theory in the
        subject: Kaptsov, N. A.,(p. 23) in connection with the idea of an artificial
        dielectric. Bonch-Bruyevich, M. A.,(p. 25) - use of lenses and prisms
        made of an artificial dielectric for producing sharply directional an-
        tennas, and, together with Neyman, M. S., first to introduce slot antennas;

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Pistol'kors, A. A., (p. 26) was the first to develop a theory of slot antennas; this was followed by studies and theories of Fel'd, Ya. N., Vaynshteyn, L. A. and Mrrkov, G. T. (p. 44) in the field of slot antennas and of radiation from the open end of a waveguide. Fel'd, Ya. N. developed the suggestions of Mandel'shtam, A.I., and Sveshnikova, M. P., (p. 50) and presented a method for an exact solution of problems of electrodynamics. Vvedenskiy, B. A., and Arenberg, A. G., in their books, Kisun'ko, G. V., Yasvinskiy, V. I., and others in their articles (p. 144) developed the theory of rectangular waveguides. Kinber, B. Ye. (p. 414) investigated the passage of radiation through small apertures in metal plates. Katselenbaum, B. Z. (p. 513) investigated the problem of propagation of electromagnetic waves along infinite dielectric cylinders at low frequencies. There are 67 references, 46 of which are Soviet, including 18 translations 17 English, 2 French, and 2 German.

TABLE OF
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  7. Surface-wave squirrel-cage antenna   597

AVAILABLE: Library of Congress   TK7872 A8F7

JJP/gmp
August 29, 1958

Card 9/9

ZEITLENOK, Grigoriy A., DOLUKHANOV, M. P., MURAVYEV, XXXXXX K. Kh., PALSHKOV, V. V.,
FOMICHEV, I. N. and FRADIN, A. Z.

"Research Work of the Leningrad Electrical Engineering Instittue of Communications
on the Propagation of Radio Waves by Means of Tropospheric Scatter on the Experimental
Leningrad-Petrozavodsk Line."

paper presented at the Conference on Propagation of Very Short Waves in Prague
(Liblice) 10-12 November 1958.

SOV/106-58-4-5/16

AUTHORS: Fradin,A.Z. and Olendskiy, V.A.

TITLE: Measurement of the Input Asymmetry of Radio Receivers
(Ob izmerenii asimmetrii vkhoda radiopriyemnikov)

PERIODICAL: Elektrosvyaz', 1958, Nr 4, pp 30 - 35 (USSR)

ABSTRACT: Correct operation of a symmetrical receiver system,
consisting of an antenna, a line feeder and a receiver input,
demands strict symmetry in all its elements. Methods of
measuring the asymmetry of antennae and feeders have been
developed (Reference 1). In this article is developed a method
for measurement of the asymmetry of the receiver input and
related parameters.
The antenna effect of an uncovered feeder line is conveniently
evaluated by the feeder reception coefficient (Refs 2 and 3)
by which is meant the ratio of the voltage at the grid of the
first valve of the receiver, due to the feeder and antenna
when working in a co-phase regime, to the voltage at the same
points due to the antenna when working in an anti-phase wave
regime. It is also assumed that the fields which excite both
the co-phase and anti-phase waves are similar and come from
the main maxima of the polar diagrams of the antenna-feeder
system for the co-phase and anti-phase wave.
Card1/6   The feeder reception coefficient depends on two forms of

asymmetry: impedance asymmetry and emf asymmetry. The physical concepts behind these two forms are illustrated in Figure 1. Here, by Z_H is meant the impedance between the receiver input terminals and by Z' and Z'' the leakage impedances between each input terminal and the earthed chassis of the receiver. The coefficients M, M' and M'' characterise the coupling of the receiver input circuit to the feeder coil L_ϕ and to the side branches of the three terminal network, respectively. As an example, Figure 1 shows transformer coupling but other forms of coupling can be used. Impedance asymmetry is characterised by the difference between Z' and Z'' and is qualitatively determined by the coefficient:

$$\dot{A}_z = \frac{\dot{Z}' - \dot{Z}''}{\dot{Z}' + \dot{Z}''} \qquad (1)$$

Asymmetry of the emf E' and E'', which appear at the input terminals when a voltage U_o is applied to the input circuit, is characterised by the difference between M' and M''. The

Card 2/6

Measurement of the Input Asymmetry of Radio Receivers

emf asymmetry is evaluated by the coefficient:

$$\dot{A}_E = \frac{\dot{E}' + \dot{E}''}{\dot{E}' - \dot{E}''} \qquad (2)$$

The emf and impedance asymmetries can either increase the feeder reception coefficient or, by compensating each other, reduce the feeder reception coefficient. Apart from $\dot{A}_Z$ and $\dot{A}_E$, the reception feeder coefficient also depends on the parameter:

$$\dot{m} = \frac{2\dot{Z}'\dot{Z}''}{\dot{Z}_H(\dot{Z}' + \dot{Z}'')} \qquad (3)$$

which the author calls the receiver input leakage coefficient and on the receiver input impedance (Z_{BX}) :

$$\dot{Z}_{BX} = \frac{\dot{Z}_H(\dot{Z}' + \dot{Z}'')}{\dot{Z}_H + \dot{Z}' + \dot{Z}''} \qquad (4)$$

Card 3/6

Measurement of the Input Asymmetry of Radio Receivers

The relationship between the feeder reception coefficient and the basic parameters of the antenna-feeder system and of the receiver input is given (Eqs.(5) and (6).) . To obtain the impedance asymmetry coefficient $\dot{A}_z$ and the leakage coefficient $\dot{m}$, the three-circuit method illustrated in Figure 2 is used. The input conductances of the tuned receiver are first measured using a high-frequency bridge, and then the coefficients $\dot{A}_z$ and $\dot{m}$ are calculated from the values obtained. Circuit 1, without the input terminal earthed, can be used to measure the input impedance of the receiver. The emf asymmetry coefficient $\dot{A}_E$ can be measured by anti-phase and co-phase connection of the emf to the receiver input.

In this method, a voltage of the required frequency from a high-frequency generator with a symmetrical output is applied to the tuned receiver input terminals in two ways, as shown in Figure 3. Circuit 'a' provides the anti-phase supply and circuit 'b' the co-phasal supply.

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SOV/106-58-4-5/16

Measurement of the Input Asymmetry of Radio Receivers

The generator voltages are set so that the receiver output voltage is the same for both circuits. Measurements of the asymmetry coefficients A_Z and A_E and the leakage parameters were made on two types of receiver (KTF-1, AR-88) over a frequency band of 6 to 16 Mc/s at 2 Mc/s intervals. A Marconi high-frequency measuring bridge was used and, for the circuits of Figure 3, a generator GSS-6 was used.

The results are given in Tables 1 and 2. The receiver KTF-1 has coefficients A_Z and A_E of several percent, lying within the accuracy limits of the measurements. The parameter m is very large over practically the whole of the shortwave band.

The coefficient A_Z for the AR-88 is also very small.

The coefficient A_E has different values for different frequencies in the sub-band, changing from 0.8 to 2.8. The leakage parameter m is less than for the KTF-1 but has a sufficiently high value.

Calculated values for the feeder reception coefficient for

Card 5/6

Measurement of the Input Asymmetry of Radio Receivers   SOV/106-58-4-5/16

two types of antennae - rhombic and symmetrical resonators - are given in Table 3. The data corresponds to the most favourable case of minimum feeder reception coefficient which occurs with very long feeders and with high attenuators. There are 3 figures, 3 tables and 3 Soviet references.

SUBMITTED: April 5, 1957

Card 6/6   1. Radio recievers--Performance   2. Impedance--Measurement
               3. Antenna--Performance   4. Mathematics--Applications

FRADIN, Afroim Zelikovich

Microwave Antennas. Wright-Patterson Air Force Base, Ohio, 1959.
698 L. illus., diagrs., graphs (F-TS-9548/V)
Translated from the original Russian: Antenny Sverkhvysokikh Chastot,
Moscow, 1957.
Bibliography: L. 690-693.

9, 1800

AUTHOR: Fradin, A. Z.

TITLE: A square pyramidal horn with identical radiation patterns in the principal E and H planes

PERIODICAL: Elektrosvyaz', no. 9, 1961, 39 - 43

TEXT: The horn feeds with square aperture used for tropospheric communications do not ensure an identical illumination of the reflector along the E and H lines. A method permitting to eliminate this defect is described in the present article. In the case of pyramidal horns with a rectangular aperture (Figure 1), the field level 0.3 at the reflector edges occurs, on the E line, at:

$$d_E = 0.727 \lambda \frac{1}{\sin\vartheta} \tag{7}$$

$$\tag{8}$$

and on the H line at:

$$d_H = \lambda \frac{1}{\sin\vartheta'}$$

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us
the
H l.   and on the H line,
pal   and 0.45 on the
mina   ...erent in the princi-
into   . To render the reflector illu-
plate   Card 1/4   ... one author introduced metal plates
affect   ...vely small distance Δ between them, these
...ze of the horn aperture along the E line. This permits satisfying conditions

A square pyramidal horn with identical ....

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S/106/61/000/009/006/008
A055/A127

(7) and (8) in the case of the square horn. The effective size along the E line ($d_{E\ eff}$) can be calculated with the aid of the following formula:

$$d_{E\ eff} = d - 2 \, 1 + \frac{\lambda}{2\pi \sqrt{\left(\frac{\lambda}{2\Delta}\right)^2 - 1}}$$ (9)

where 1 is the width of the metal plates. Choosing 1 and Δ so that $d_{E\ eff}$ should be equal to 0.727d, it is possible to equalize the horn radiation patterns in the principal E and H planes, and to obtain the optimum illumination of the reflector. This has been fully confirmed by an experimental check described at the end of the article. In conclusion the author states that the presence of the metal plates in the horn improves to a certain extent the matching of the horn to the waveguide. The broader the plates, the better will be the matching. There are 5 figures and 3 Soviet-bloc references.

SUBMITTED: April 13, 1960.

Card 3/4

FRADIN, Afroim Zelikovich; RYZHKOV, Yevgeniy Vasil'yevich; FEL'D,
Ya.N., doktor tekhn. nauk, retsenzent; GRAUDE, B.V., doktor
tekhn. nauk, otv. red.; NOVIKOVA, Ye.S., red.; MARKOCH, K.G.,
tekhn. red.

[Measurement of the parameters of antenna-feeding devices] Iz-
merenie parametrov antenno-fidernykh ustroistv. Moskva,
Sviaz'izdat, 1962. 315 p.   (MIRA 15:8)
     (Antennas) (Radio lines) (Wave guides)

MILYUTIN, Ye.R., assistent; FAL'KOVSKIY, O.I., aspirant; KHOLMOVSKAYA
O.K., assistent; FRADIN, A.Z., dots., otv. red.; GAL'CHINSKAYA,
V.V., tekhn. red.

[Manual for a course project on antennas] Rukovodstvo po kurso-
vomu proektirovaniiu antenn; uchebnoe posobie. Leningrad,
Leningr. elektrotekhn. in-t sviazi im. M.A.Bonch-Bruevicha.
Pt.1. 1963. 51 p.   (MIRA 17:3)

L 10319-63   FCS(k)/EWT(1)/EEC-2/EED-2/BDS--
ASD/ESD-3/APGC--WR
ACCESSION NR: AP3000556   S/0109/63/008/005/0759/0764

AUTHOR: Fradin, A. Z.

TITLE: Method of synthesizing a nearest-to-isotropic radiator 25B

SOURCE: Radiotekhnika i elektronika, v. 8, no. 5, 1963, 759-764

TOPIC TAGS: isotropic (radio) radiator, microwave antennas

ABSTRACT: A radiator whose electromagnetic field is uniform in magnitude and polar-
ization for all spherical-coordinate angles is considered isotropic. The case of
circular polarization is examined. The field components are expressed as functions
of the spherical coordinates, and a general solution based on the Maxwell equations
is arrived at (Enclosure, formula 6). In a particular case, the solution is expand-
ed into a Fourier series with Legendre polynomials. It is concluded that the possi-
bility exists in principle of designing a radiator that would approach a perfectly
isotropic radiator to any desired degree. However, the synthetic possibilities are
limited by the general characteristics and size of antennas. Orig. art. has: 24
equations.

ASSOCIATION: none

SUBMITTED: 26May62   DATE ACQD: 30May63   ENCL: 01
SUB CODE: CO   NO REF SOV: 002   OTHER: 000
Card 1/2

FRADKIN, B.M., dotsent, kand.tekhn.nauk

Electrodynamic processes in a ferromagnetic solid characterized by a rectangular hysteresis loop. Trudy MEI no.27:179-204 '58.
(MIRA 13:4)
(Ferromagnetism)

FRADKIN, Grigoriy Mikhaylovich; PODOSHVINA, V.A., red.; VLASOVA,
N.A., tekhn. red.

[Isotopic neutron sources] Izotopnye istochniki neitronov;
spravochnik. Moskva, Gosatomizdat, 1963. 86 p.
                                          (MIRA 16:12)

   (Isotopes) (Neutron sources)

GORNSHTEYN, D.K.; GUDKOV, A.A.; KOSOLAPOV, A.I.; LEYPTSIG, A.V.;
        MEL'NIKOV, V.M.; MOKSHANTSEV, K.B.; FRADKIN, G.S.; CHERSKIY,
        N.V.; TROFIMUK, A.A., akademik, nauchn. red. vyp.; ROZHKOV,
        I.S., glav. red.; KOBELYATSKIY, I.A., zam. glav. red.;
        SHATALOV, Ye.G., zam. glav. red.; BONDARENKO, V.I., red.;
        GRINBERG, G.A., red.; YELOVSKIKH, V.V., red.; RUSANOV, B.S.,
        red.; SEMENOV, G.T., red.; TKACHENKO, B.V., red.; KALANTAROV,
        A.P., red.izd-va; GUSEVA, A.P., tekhn. red.

[Basic stages of the geological development and prospects for
finding oil and gas in the Yakut A.S.S.R.] Osnovnye etapy geo-
logicheskogo razvitiia i perspektivy neftegazonosnosti IAkut-
skoi ASSR. [By] D.K.Gornshtein i dr. Moskva, Izd-vo AN SSSR
1963. 238 p.   (MIRA 16:12)
             (Yakutia--Petroleum geology)
             (Yakutia--Gas, Natural--Geology)

ALTUNDZHI, Sergey Vladimirovich; BUKHARIN, Viktor Vladimirovich;
    DOBKINA, Yevgeniya Abramovna; KUZNETSOV, Nikolay Mikhaylo-
    vich, inzh.; POPOVA, Kseniya Georgiyevna; TEZIKOV, Aleksandr
    Dmitriyevich; FRADIN, Leon Romanovich; BADYL'KES, I.TS.,
    doktor tekhn.nauk, retsenzent; SKIRSTYMONSKIY, A.I., inzh.,
    retsenzent; PRITYKINA, L.A., red.; SOKOLOVA, I.A., tekhn.red.

[Production and use of liquid carbonic acid] Proizvodstvo i
primenenie zhidkoi uglekisloty. Moskva, Pishchepromizdat,
1959. 207 p.   (MIRA 13:2)
            (Carbonic acid)

.18(0)   SOV/128-59-9-9/25
AUTHOR: Sokolovskiy L.O. and Fradin L.R., Engineers

TITLE: The Problem of Producing Carbon Dioxide for the Foun-
               dries

PERIODICAL: Liteynoye proizvodstvo, 1959, Nr 9, pp 29-32 (USSR)

ABSTRACT: The installations for production of carbon dioxide
               can be, according to raw-materials used, divided in-
               to 6 groups. Group 1: Utilization of outlet gases
               that are formed at fermentation of spirit and beer,
               breaking up of fats, etc.; CO_2 contents - 100% (Fig
               1). Group 2: Utilization of outlet gases formed at
               different chemical processes, such as ammonia synthe-
               sis, crude-oil working, etc.; CO_2 contents - 80% to
               90% (Figure 2). Group 3: Installations extracting
               the carbon dioxide from gases formed at burning of
               different fuels, such as are, for instance, developed
               at preparing of burned lime; CO_2 contents - 15% to
               20% (Fig 3). Such installations are comparatively
               widely used in the USSR. Group 4: Installations uti-
               lizing the natural sources of carbon dioxide, (mine-
               ral springs, gas emanating fissures, etc.). Group
Card 1/2   5: Installations which use carbon dioxide originating

SOV/128-59-9-9/25

The Problem of Producing Carbon Dioxide for the Foundries

by burning of coke in oxygen atmosphere. (Installa-
tions of Uralkhimmash and Giprotyazhmash). (Figure
4 and 5). Group 6: Installations using carbon dio-
xide obtained by working of chalk by sulfuric acid.
(Installation at the Slavyanskiy Plant). (Figure 6).
The People's Economy Plan provides for the building
of installations belonging to groups 1 and 2. The
author of this article recommends, however, groups 3,
5 and 6 to be used in foundry industry. He makes, at
that, the reservation that the carbon dioxide recei-
ved in installations belonging to group 5 can be
hardly used for food industry, as it may contain car-
bon monoxide. The NIIKhIM-MASh has worked out a uni-
versal design for producing carbon dioxide. The
winning of CO_2 in this installation can be carried
out in three different ways: from outlet gases gene-
rated by furnaces operating at plants; by burning of
fuels in fire-chambers of steam boilers; and by bur-
ning of fuels in special gasgenerators in oxygen at-
mosphere. There are 2 tables and 6 diagrams.

Card 2/2

FRADIN, M.D.; CHERNOVA, A.V.

Adopting the production of and producing 25-meter long railroad
rails. Metallurg 8 no.12:22-24 D '63.   (MIRA 17:4)

1. Zavod "Azovstal'".

SIDEL'KOVSKIY, M.P.; SHUM, B.M.; FRADIN, M.D.; TSILEVICH, I.Z.;
   BUL'SKIY, M.T.; YASHCHENKO, V.A.; KARPOV, G.D.

[Improvement of rolling-mill technology on the basis of
advanced experience] Usovershenstvovanie tekhnologii v
prokatnykh tsekhakh na baze peredovogo opyta. Moskva, Gos.
nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallur-
gii, 1953. 306 p.   (MLRA 7:3)
                                          (Rolling mills)

FRADIN, M.D., inzhener; CHERNYSH, P.V., inzhener.

The use of hidden potentialities in a rail mill. Stal' 16 no.2:
143-150 F '56.   (MLRA 9:5)

1. Zavod "Azovstal".
                (Shdanov--Rolling mills)

FRADIN, M.D.

FRADIN, M.D., inzhener.

"Defects in rolled steel and ways to avoid them." by V.D.Trofimchuk.
Reviewed by M.D.Fradin. Stal' 16 no.12:1142-1144 D '56. (MLRA 10:9)

1. Zavod "Azovstal'."
                    (Rolling (Metalwork))   (Steel--Defects)
                              (Trofimchuk, V.D.)

AUTHORS: Khlebnikov, V.P., Fradin, M.D., and Chekhovskiy, P.A.

133-12-11/26

TITLE: On the Problem of Rational Design of Roll Passes for Rails
          (K voprosu o ratsional'noy kalibrovke rel'sov)

PERIODICAL: Stal', 1957, No.12, pp. 1103 - 1107 (USSR).

ABSTRACT: This is a contribution to the discussion of the paper by
           P.A. Aleksandrov and I.S. Trishevskiy (Stal', 1955, No.12). The
           present authors consider that a rigid approach to the use of
           high semis for rolling rails as well as of a high and sharp
           crown in the first trapezoidal pass is not beneficial for the
           quality of rails produced. Improvements in the quality of rails
           obtained on changes in the design of roll passes on a mill 900
           for rails P-50 used in 1954, 1955 and 1956 (Figs. 2, 3 and 4,
           respectively) in which the shape of roll passes has been modi-
           fied and the number of trapezoidal passes steadily decreased
           to two, indicate the possibility of adoption of not more than
           3 trapezoidal passes for an optimum calibration. There are
           2 tables, 4 figures and 4 references, 3 of which are Slavic.

ASSOCIATION: Azovstal' Works (Zavod "Azovstal'")

AVAILABLE: Library of Congress
Card 1/1

FRADIN, M.D., inzh.; CHEKHOVSKIY, P.A., inzh.; KHLEBNIKOV, V.P., inzh.

Review of B.M. Shum's book "Rail and heavy-section mills." Stal'
17 no.12:1112-1113 D '57.   (MIRA 11:1)

1. Zavod "Azovstal'."

(Rolling mills)
(Shum, B.M.)

KAZARNOVSKIY, D.S.; DYUBIN, N.P.; GERSHGORN, M.A.; KRAVTSOVA, I.P.;
    KLIMOV, K.N.; RUDOL'SKIY, N.L.; FRADIN, M.D.; SVIRIDENKO, F.F.;
    FRADINA, M.G.; ZANNES, A.N.; CHERNOVA, A.V.

Experimental railroad rails made of chromium-nickel native
alloy steel. Stal' 22 no.6:548-550 Je '62.   (MIRA 16:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov i
zavod "Azovstal'".
              (Chromium-nickel steel)
              (Railroads—Rails)

FILIPPOV, I.N.; GUNIN, I.V.; Prinimali uchastiye: DABAGYAN, N.P.; CHETVERIKOV,
A.V.; MIROSHNICHENKO, V.G.; FRADIN, M.D.; PAVLOVSKIY, V.Ya.;
FIL'CHAKOVA, V.A.; ALEKSANDROVA, L.A.; DUBROVIN, F.S.

Investigating the buckling of webs on lightweight I-beams.
Stal' 23 no.10:915-918 O '63.   (MIRA 16:11)

1. Ukrainskiy institut metallov. 2. Ukrainskiy institut metallov
(for Dabagyan, Chetverikov, Miroshnichenko). 3. Zavod "Azovstal'"
(for Fradin, Pavlovskiy, Fil'chakova, Aleksandrova, Dubrovin).

ZANNES, A.N., inzh.; RUDOL'SKIY, N.L., inzh.; FRADIN, M.D., inzh.;
SAPELKINA, O.R., inzh.; BIKHUNOV, L.Ya., inzh.; GLOZMAN, M.I.,
inzh.; Prinimali uchastiye: DEMICHEV, A.D.; SUCHKOUSOV, V.P.;
BLAGOVESHCHENSKIY, G.V.; GOLOVIN, G.F.; KAZARNOVSKIY, D.S.;
RAVITSKAYA, T.M.

Surface induction hardening of rails along their whole
length at the Azovstal' Plant. Stal' 24 no.8:731-734
Ag '64.   (MIRA 17:9)

1. Nauchno-issledovatel'skiy institut tokov vysokoy chastoty
(for Demichev, Suchkousov, Blagoveshchenskiy, Golovin).
2. Ukrainskiy nauchno-issledovatel'skiy institut metallov
(for Kazarnovskiy, Ravitskaya).

PAVLOVSKIY, V.Ya.; TSILEVICH, I.Z.; FRADIN, M.D.; KRISHTAFOVICH, F.D.;
    SHAPIRO, Yu.A.; GRIGOR'YEVA, M.G.; RACHOTINA, Ye.T.; KRETOVA, G.V.

Rolling mill rolls of hypereutectoid chromium-vanadium 90 KhF steel.
Metallurg 10 no.7:40   Jl '65.   (MIRA 18:7)

1. Metallurgicheskiy zavod "Azovstal'".

FRADIN, P.S.

Be clean and you'll be healthy. Zdorov'e 4 no.5:25 My '58.

(MIRA 11:4)

1. Glavnyy vrach gorodskogo Doma sanitarnogo prosveshcheniya,
Vorosholovsk, USSR.
(HEALTH EDUCATION)

FRADIN, P.S.

Carrying out a one-stage biological method for treating deep dental
caries and pulpitis. Stomatologiia 40 no.2:56-58 Mr-Ap '61.
(MIRA 14:5)

1. Iz 1-y Artemovskoy gorodskoy bol'nitsy imeni M.V.Frunze (glavnyy
vrach G.A.Pavlusenko).
(TEETH--DISEASES)   (GUMS--DISEASES)
(ANTIBIOTICS)

FRADIN, V.L.

Holder of thread-cutting tools. Stan.i instr. 33 no.6:41 Je
'62.   (MIRA 15:7)
            (Metal-cutting tools)

L 20932-66   EWT(d)/EWT(l)/EWT(m)/EWP(f)/T-2/   WW
ACC NR: AP6002576   (A)   SOURCE CODE: UR/0286/65/000/023/0070/0070

AUTHORS: Reshes, L. L.; Drobyshevskiy, Ch. B.; Zharnov, E. M.; Rychago, A. D.;
Fradin, V. Ye.

ORG: none

TITLE: Decompression device for internal combustion engines. Class 46, No.
176749

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 70

TOPIC TAGS: internal combustion engine component, decompressor

ABSTRACT: This Author Certificate presents a decompression device for internal
combustion engines. The device contains a distributing shaft with cylindrical
decompression cams placed under the distributor valve lifters. To decrease the
harmful volumes in the cylinders, the cams are made with cutouts of a prescribed
shape for smooth fitting of the valves into the valve seats when the piston
reaches top dead center.

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UDC: 621.43.066

L 20932-66
ACC NR: AP6002576
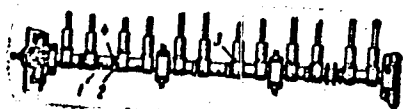
Fig. 1. 1 - distributing
shaft; 2 - decompression
cams; 3 - lifters;
4 - slice.

Orig. art. has: 1 diagram.

SUB CODE: 21/   SUBM DATE: 20Oct62

2/2 ULR

SOV/133-58-8-18/30

AUTHORS: Sviridenko, F.F., Popova, A.N. and Fradina, M.G.

TITLE: The Influence of an Increased Arsenic Content on the
             Ductility of Rail Steel (Vliyaniye povyshennogo soder-
             zhaniya mysh'yaka na koprovuyu vyazkost' rel'sovoy stali)

PERIODICAL: Stal', 1958, Nr 8, pp 739 - 741 (USSR)

ABSTRACT: As the steel manufactured on the "Azovstal'" Works
             contains up to 0.15% of As, in order to establish the
             influence of a higher arsenic content on the properties
             of rails, special rails containing from 0.18 to 0.30% of
             arsenic were made. Alloying with arsenic was done with
             arsenic-iron briquettes added to ingot moulds. The
             composition of steel: C 0.67-0.82, Mn 0.68-0.97,
             Si 0.16-0.25, S 0.013-0.032, P 0.020-0.038%. All experi-
             mental ingots were rolled into rails by the usual tech-
             nology without encountering any difficulties. The
             distribution of As content along the length of rails -
             Table 1; the As content in the rails from top and bottom
             part of ingots - Table 2; mechanical properties of rails
             with an increased (A) and normal (B) arsenic content -
             Tables 3, 4 and 5. It is concluded that an increase of
             arsenic content from 0.13 to 0.25% has no practical

Card1/2

The Influence of an Increased Arsenic Content on the Ductility of SOV/133-58-8-18/30
Rail Steel

influence on the impact strength of rail specimens on
ageing of up to 9 months. There are 5 tables and 2 Soviet
references.

ASSOCIATIONS: Zavod "Azovstal'" ("Azovstal'" Works) and
Ukrainskiy institut metallov (Ukrainian Institute
of Metals)

Card 2/2

1. Steel--Mechanical properties   2. Arsenic--Metallurgical
effects

SVIRIDENKO, F.F., inzh.; POPOVA, A.N., inzh.; FRADINA, M.G., inzh.;
CHERNOVA, A.V., inzh.; TARASOVA, L.P., inzh.

Experimental production of 10-ton rail ingots. Stal' 20
no.8:699-701 Ag '60.   (MIRA 13:7)

1. Zavod "Azovstal'."
                    (Steel ingots)

KAZARNOVSKIY, D.S.; DYUBIN, N.P.; GERSHGORN, M.A.; KRAVTSOVA, I.P.;
KLIMOV, K.N.; RUDOL'SKIY, N.L.; FRADIN, M.D.; SVIRIDENKO, F.F.;
FRADINA, M.G.; ZANNES, A.N.; CHERNOVA, A.V.

Experimental railroad rails made of chromium-nickel native
alloy steel. Stal' 22 no.6:548-550 Je '62.   (MIRA 16:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov i
zavod "Azovstal'".
                (Chromium-nickel steel)
                (Railroads--Rails)

PROTASOV, N.F., inzh.; SHUVALOV, B.I., inzh.; FRADINA, M.G., inzh.;
    CHERNOVA, A.V., inzh.; RAKHANSKIY, B.I., inzh.

    Properties and peoularities in the production of type R-75
    heavy rails. Stal' 23 no.8:731-733 Ag '63.   (MIRA 16:9)
                  (Railroads--Rails) (Rolling (Metalwork))

ARSHAVSKIY, V.X.; TSYAN SHAO TSZYA [Chiang Shao-chia]; KRAPUKA, P.?.;
GUNIN, I.V.; SAPRYGIN, K..M.

Knurling of blooming mill rolls and its influence on the
quality of the rolls. Met. i gornorud. prom. no.4:43-44
Jl-Ag '64.   (MIRA 18:7)

DYUBIN, N.P.; DYUBINA, A.V.; SVIRIDENKO, F.F.; KARPUNIN, A.M.; Prinimali
uchastiye: LEVCHENKO, N.D.; POPOVA, N.N.; TROFIMOV, V.V.;
SHUBENKO, G.L.; CHETVERTKOV, A.V.; RYABININ, N.G.; ZEMLYANSKAYA,
L.I.; FRADINA, M.G.; ORGIYAN, V.S.; SABUTSKIY, F.M.; MOMGELI, A.V.;
BUL'SKIY, M.T.; FRADIN, M.D.; VALENKO, N.S.; KUCHERYAVYY, Yu.P.;
CHEPELEV, P.M.; SABUROV, T.A.; POLYAKOV, P.M.; MALASHENKO, R.B.

Effect of the temperature of rail rolling on their quality.
Sbor. trud. UNIIM no.11:344-353 '65.   (MIRA 18:11)

GERSHGORN, M.A.; SVIRIDENKO, F.F.; KAZARNOVSKIY, D.S.; KRAVTSOVA, I.P.;
POPOVA, A.N.; ERADINA, M.G.; Prinimali uchastiye: L'E'SHOV, G.G.;
RUDOL'SKIY, N.L.; SLEPKANEV, N.P.; PLISKANOVSKIY, S.T.; GORBANT,
Ya.S.; BUL'SKIY, M.T. [deceased]; ARKHANGEL'SKIY, Yu.N.; SHAROV,
B.A.; VISTOROVSKIY, N.T.; RAKHANSKIY, B.I.; SAPOZHKOV, V.Ye.;
RYABININ, N.G.; KARAKULINA, R.R.; FADEYEVA, A.M.; ZVEREV, D.A.

Improving the production of high-strength rails by alloying
them with granulated ferrochromium in the ladle. Stal' 25
no.5:408-411 My '65.   (MIRA 18:6)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov i zavod
"Azovstal'".

KREYNDLER, A.; FRADIS, A.

Clinical physiological studies in aphasia caused by acute disorders of cerebral blood circulation. Nauch. trudy Inst. nevr.
AMN SSSR no.1:182-191 '60.   (MIRA 15:7)

1. Bukharest, institut nevrologii imeni Pavlova Akademii
Rumynskoy Narodnoy Respubliki, Bukharest.

(APHASIA)   (CEREBROVASCULAR DISEASE)

VEYGL', E.; FRADIS, A.

Semeiological study of alexia. Zhur.nerv.i psikh. 59 no.12:1425-
1435 '59.   (MIRA 13:4)

1. Institut nevrologii imeni I.P. Pavlova (dir. - akad. A. Kreynd-
ler) Akademii Rumynskoy Narodnoy Respubliki, Bukharest.
            (ALEXIA)

FRADIS, A.D.

Electrocardiogram and blood pressure in stimulation and inhibition of the nervous system. Arkh. pat., Moskva 12 no.6:23-26 Nov-Dec 50.
(CLML 20:4)

1. Of the Department of Pathological Physiology (Head--Prof. I. I. Fedorov), Chernovitsy Medical Institute, Chernovitsy

KREINDLER, A. academician ; DABIJA, Gh; POILICI, I; FRADIS,A.

Complex method of study of higher nervous activity in humans.
Bul.stiint.,sect.med. 6 no.4:937-967 Oct-Dec '54 (MLRA 8:8)
        (CENTRAL NERVOUS SYSTEM, physiology
            higher nervous funct. investigation methods)
        (PLETHYSMOGRAPHY
            in investigation of higher nervous funct.)
        (REFLEX, CONDITIONED
            motor, in investigation of higher nervous funct.)
        (THINKING
            verbo-verbal association, in test of higher nervous
            funct.)

Fradis, A.

USSR/Human and Animal Physiology - Nervous System.   R-12

Abs Jour   : Referat Zhur - Biologiya, No 16, 1957, 71155

Author   : Kreindler, Dabizha, Poilich, Fradis
Title   : Complex Method of Study of Human Nervous Activity.

Orig Pub   : Zh. med. nauk. Akad. RNR, 1956, 1, No 1, 103-130

Abstract   : A complete description of every component of the complex
              method (plehysmography, motor-verbal method, and associa-
              tion experiment are given), with a detailed description
              on indicators which can be used for the evaluation of
              the different aspects of higher nervous action. Illus-
              trations are given as well as   physiological treatment
              of curves. In spite of some schematic treatment, the com-
              bination of these three methods permits a modicum of
              evaluation of subcortical differentiation of the first
              and second signal systems of the cortex.

Card 1/1   - 99 -

RUBRIK./Human and Animal Physiology. Nervous System. General   T
          Problems.

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93543.

Author : Radovici, A., Fradis, A., Cucleli, H.
Inst   : Institue of Neurology of the AS RPR.
Title   : Connection Between Cerebral Cortex and Liver.

Orig Pub: Studii'si cercetari neurol. Acad. RPR. Inst. Neurol.,
          1957, 2, No 1, 7-14.

Abstract: Clinical tests of 46 patients with organic diseases
          of the CNS and no previous history of diseases of
          the liver (L) have established functional disorders
          of L in 80.4% of cases tested. The highest percen-
          tage rate (96.2%) of hepatic insufficiency has been
          found in patients with lesion of the cerebral cortex.

Card   : 1/1

999. THE STUDY OF NEURODYNAMICS IN APHASIA - Isuchenie neirodinamiki
pri afazii - Kreindler A. and Fradis A. -ZH. NEVROPAT. I PSIKHIAT.
1957, 8 (929-940)

Twenty patients with various forms of aphasia of vascular origin were examined.
In patients with aphasia in all groups of connections (according to Ivanov-
Smolenskii) the latent period of reactions was found to be prolonged, which points
to a disruption of connections in the first signalling system. The non-verbal/
verbal connections, constituting the first step to abstraction, were found to have
suffered most in all forms of aphasia. The form of aphasia could be deduced from
the way the patients carried out the 'test of 4 types of connections'. The more
marked the sensory component was, the more predominant was the execution of
a gesture command. The relations between the second signalling system and the
subcortical vegetative reactions were studied by means of an associative experi-
ment with a simultaneous recording of respiration and the skin-galvanic reflex.
The grasping reflex was also studied. A lowered vegetative-vascular reactivity,
inertia of the respiratory reactions, and considerable release of inhibition of the
grasping reflex were discovered in aphasia. The rhythm reproduction test was
used for the study of cortical dynamics. A noticeable weakening of internal inhibi-
tion and excitation, poor motility of nervous processes, and the presence of
speech perversions (the origin of which the authors explain by the existence of a
dominant focus in the cortex) were established in patients with aphasia. Serious
disturbances of differentiation of the visual and auditory stimuli were discovered
with the help of conditioned reflex methods.

1001. THE RHYTHM TEST IN APHASIA - Proba ritmului în afazie - Kreind-
ler A. and Fradis A. - STUD.CERC.NEUROL. 1957, 2/1 (69-84)
Tables 1

By means of a hammer, the experimenter beats on a table at equal intervals
ranging between 0.3 sec. to 30 sec. The patient is invited to reproduce this rhythm.
Normal subjects easily reproduce rapid rhythms, but the reproduction of slow
rhythms is a difficult task. Some subjects have a tendency to slow down the rhythm,
others have a tendency to accelerate it. It is considered that the acceleration of the
rhythm indicates a predominance of the process of excitation in the cerebral cortex,
whereas the slowing down points to a predominance of the inhibition. Children ex-
perience great difficulties in reproducing slow rhythms, which indicates an insuffic-
iency of their inhibition capacity. Patients suffering from hemiplegia on the right
side without aphasia showed a marked difficulty in executing slow rhythms, which
denotes a weakness of the internal inhibition due to the non-specific influence of any
cerebral lesion. In the majority of the aphasics examined, the test revealed a mark-
ed weakening of the internal inhibition manifesting itself by the accelerated repro-
duction of slow rhythms.   Voiculescu - Bucharest

FRADKIN, A.

We will meet our obligations. Voen.znan. 37 no.7:22 Jl '61.
(MIRA 14:6)

1. Predsedatel' komiteta pervichnoy organizatsii Vsesoyuznogo dobrovol'-
nogo obshchestva sodeystviya armii, aviatsii i flotu Chelyabinskogo
metallurgicheskogo zavoda.
(Chelyabinsk—Technology clubs)

FRADKIN, A.; EPSHTEYN, M.

Where the crops rustle on virgin land. Obshchestv. pit.
no.8:12-19 Ag '61.   (MIRA 14:10)
        (Virgin Territory—Restaurants, lunchrooms, etc.)

FRADKIN, A.

     In constant search for betterment. Obshchestv.pit. no.1:17-21 Ja '63.
                                     (MIRA 16:4)
         (Yalta—Restaurants, lunchrooms, etc.)

FRADKIN, A.

Soviet Georgia is 40 years old. Obshchestv.pit. no.2:8-10 F '61.
(MIRA 14:3)

(Georgia—Restaurants, lunchrooms, etc.)

FRADKIN, A.B.; ULASYUK, V.M.

Repairing submersible electric motors in oil-field shops. Energ.
biul. no.10:20-22 0 '56.   (MLRA 9:11)
                    (Electric motors--Repairing)

FRADKIN, A.B.; FRIDMAN, M.Ye.

Results of using an electric brake in drilling. Azerb.neft.
khoz. 35 no.6:14-15 Je '56.   (MLRA 9:10)

   (Oil well drilling--Equipment and supplies)

E/T
741.32
.S12

Safarov, Yusif Ali

Elektrobureniye cElectrical drilling, by3 Yu. A. Safarov, cI 3
A. B. Fradkin. Baku, Aznefteizdat, 1957.

187 c23 p. illus., diagrs., graphs, tables.

"Literatura": p. c1893

SAFAROV, Yu.A.; FRADKIN, A.B.

New development in directional well drilling. Azerb.neft.khoz.
37 no.10:15-18 O '58.   (MIRA 12:2)
                        (Oil well drilling)

SAFAROV, Yu.A.; FRADKIN, A.B.

Experimental electric drilling in Azerbaijan oil fields. Azerb.
neft.khoz. 37 no.6:12-15 Je '59.   (MIRA 13:4)
            (Azerbaijan--Oil well drilling)

SAFAROV, Yu.A.; FRADKIN, A.B.

New development in electric drilling. Azerb. neft. khoz. 39 no.7:9-
10 Jl '60.   (MIRA 13:10)
                        (Oil well drilling, Electric)

FRADKIN, A.B.; FRIDMAN, M.Ye.

Certain results of cascade electric drilling. Izv. vys.ucheb.
zav.; neft' i gaz 5 no. 12:34-37 '62. (MIRA 17:4)

1. Azerbaydzhanskiy institut nefti i khimii imeni Azizbekova i
Eksperimental'naya kontora elektroburoniya tres'
"Azmornefterazvedka".

EFENDIZADE, A.A.; LISTENGARTEN, B.A.; FRADKIN, A.B.

Investigating the operation of an electric drill with
sweep-frequency voltage power supply. Neft.khoz. 41 no. 1:
23-28 Ja '63.
(MIRA 17:7)

SADYKHOV, Yu.V.; SALAMOV, M.Yu.; FRADKIN, A.B.

Analysis of the work of bits worn-out in electric drilling.
Izv. AN Azerb. SSR. Ser. geol.-geog. nauk no.1:71-78 '64.
(MIRA 18:6)

FRADKIN, A.B.

Cleaning the scaling in the stator groove of an electric
drill. Mash. i neft. obor. no.2:28-29 '64.   (MIRA 17:8)

1. TSentral'noye konstruktorskoye tekhnicheskoye byuro elektro-
bureniya, Baku.

GULIEV, K.B.; ??? ??, ??.

    Investigating the control of the revolutions of a cascade
electric drill with sweep-frequency voltage. Izv. vys. ucheb.
zav.; neft' i gaz 8 no.2:23-26 '65.   (MIRA 18:3)

1. Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova.

SOV/110/58-7-3/21

AUTHOR: Fradkin, A.M., Engineer, and Petrenko, F.N.,Engineer.

TITLE: Electrostatic Spray-painting of electric motors
               (Ukraska elektrodvigateley v elektrostaticheskom pole)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958. Nr 7, pp 12-16
               (USSR)

ABSTRACT: This article describes a method of painting electric
               motors in an electrostatic field. The paint is
               delivered to an atomising head which is in the form
               of a cup with its interior surface carefully polished.
               The cup rotates at a speed of 900 - 1500 r.p.m. on a
               hollow shaft through which the paint is delivered.
               This atomising device is maintained at high voltage,
               so that the drops of paint leaving the end of the cup
               are highly charged: a general view of the installation
               is given in Fig 1. The main components comprise a
               high-voltage rectifier with current-limiting resistance
               and automatic discharging devices. The painting
               chamber measures 3.5 x 3.2 x 3 m and a conveyor passes
Card 1/4   through it. The arrangement of the chamber is shown
               in Fig 2; the motors, suspended from the conveyor,

Spray-painting of electric motors   SOV/110-58-7-3/21

Card 2/4

rotate at 6 - 7 r.p.m. and are painted uniformly. The
atomisers, as illustrated in Fig 3, are mounted on
vertical insulators. The atomiser cups are driven by
a small electric motor. The paint metering device is
illustrated diagrammatically in Fig 4; connections to
the atomisers are made by insulating polyvynyl chloride
tube. A voltage of 100 kV is applied to the atomisers.
A small extraction fan is installed in the paint chamber,
primarily to remove solvent vapours. The chamber can
handle 48 motors an hour. The conveyor is described
and illustrated in Figs 5 & 6. The paint is dried in
25 minutes by an infra-red lamp installation, which
can also be seen in Fig 6. The control panel is
described. Compressed-air aotmisers were tried, and
so was compressed-air-turbine drive for the cups, but

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electric motor drive was found best. The process
ensures that most of the paint is applied to the
motors and a mist of paint is not formed. External
surfaces of motors are uniformly painted, but hidden
internal surfaces are not touched and may require
painting by a brush on the conveyor after leaving the
electrostatic field. It is important that the distance
between the atomiser and the product should not vary
too greatly. If the distance becomes too small,
flashover may occur and if it is too great the method
is not so effective. When bituminous paint 462P is
used there is no risk of fire or explosion any more
than in ordinary paint chambers, and no special
precaution is necessary. Explosive mixtures cannot
form in the chamber and the paint does not burn if a
flashover occurs provided that its power is properly
limited. The process is used at the Kharkov Electro-
mechanical works for various types of explosion-proof
Card 3/4   motors, the general layout of the equipment being

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illustrated diagrammatically in Fig 7 and briefly
described. It is concluded that the main advantage
of the method is the economy of paint, consumption of
which was cut by half. The process is automatic,
output is high and manual labour is practically
Card 4/4   eliminated. There are 7 figures.

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1. Paint sprayers--Design   2. Paint sprayers--Performance
3. Paints--Applications   4. Electric motors--Coating

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AUTHOR: Fradkin, A.M., Engineer

TITLE: An All-Union Conference on Electro-Painting and Radiant-Heat Drying of Parts in Engineering (Vsesoyuznaya konferentsiya po elektrookraske i termoradiatsionnoy sushke detaley v mashinostroyenii)

PERIODICAL: Vestnik Elektropromyshlennosti,1958,Nr 12,pp 73-74 (USSR)

ABSTRACT: A conference on the above subject was held in Gor'kiy and was attended by representatives of undertakings of Moscow, Leningrad, Khar'kov, Kiyev, Rostov, Gor'kiy and other towns. The object of the conference was to exchange experience on electrostatic paint-spraying and radiant-heat drying and to consider directions of future progress in these subjects. Thirty-nine reports and communications were read. The conference noted that one of the main directions of technical progress in the electrical painting of parts is that of electrostatic application and radiant-heat drying of paint. The use of these methods saves paint, increases labour productivity, cuts down drying time and power consumption and frees

Card 1/3   manufacturing space. Engineer S.I.Khodosh described the